

TRANSMITTAL LETTER TO THE UNITED STATES RECEIVING OFFICE

Date	2 July 2004
International Application No	New Application
Attorney Docket No.	890003-2006.WO

I. Certification under 37 CFR 1.10 (if applicable)

EV 468995876 US
Express Mail mailing number

2 July 2004
Date of Deposit

I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Islande Dupoux
Signature of person mailing correspondence

Islande Dupoux
Typed or printed name of person mailing correspondence

II. ☒ New International Application

TITLE	NEURONAL DIFFERENTIATION OF STEM CELLS
-------	--

Earliest priority Date (Day/Month/Year)
2 July 2003

SCREENING DISCLOSURE INFORMATION: In order to assist in screening the accompanying international application for purposes of determining whether a license for foreign transmittal should and could be granted and for other purposes, the following information is supplied. (Note: check as many boxes as apply):

- A. ☐ The invention disclosed was not made in the United States.
B. ☐ There is no prior U.S. application relating to this invention.

C. ☒ The following prior U.S. application(s) contain subject matter, which is related to the invention disclosed in the attached international application. (Note: priority to these applications may or may not be claimed on form PCT/RO/101 (Request) and this listing does not constitute a claim for priority.)

application no.	60/484,318	filed on	2 July 2003 (02.07.2003)
-----------------	------------	----------	--------------------------

- D. ☐ The present international application ☐ contains additional subject matter not found in the prior U.S. application(s) identified in paragraph C above. The additional subject matter is found on pages _____ and ☐ DOES NOT ALTER ☐ MIGHT BE CONSIDERED TO ALTER the general nature of the invention in a manner which would require the U.S. application to have been made available for inspection by the appropriate defense agencies under 35 U.S.C. 181 and 37 CFR 5.1. See 37 CFR 5.15.

III. ☐ A Response to an Invitation from the RO/US. The following document(s) is(are) enclosed:

- A. ☐ A Request for An Extension of Time to File a Response.
B. ☐ A Power of Attorney (General or Regular)
C. ☐ Replacement Pages:

pages	of the request (PCT/RO/101)	pages	Of the figures
pages	of the description	pages	Of the abstract
pages	of the claims		

- D. ☐ Submission of Priority Documents

Priority document	Priority document
-------------------	-------------------

- E. ☐ Fees as specified on attached Fee Calculation sheet form PCT/RO/101 annex

IV. ☐ A Request for Rectification under PCT 91 ☐ A Petition ☐ A Sequence Listing Diskette

V. ☐ Other (please specify):

<input type="checkbox"/> Applicant	Amy Leahy
<input type="checkbox"/> Attorney/Agent (Reg.No.) 47,739	Typed name of signer
<input type="checkbox"/> Common Representative	<i>Amy Leahy</i> Signature

PCT REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty

For receiving Office use only

International Application No.
International Filing Date
Name of receiving Office and "PCT International Application"
Applicant's or agent's file reference (if desired) (12 characters maximum) 890003-2006.WO

Box No. I	TITLE OF INVENTION <div style="text-align: center;">NEURONAL DIFFERENTIATION OF STEM CELLS</div>		
Box No. II	APPLICANT	<input type="checkbox"/> This person is also inventor.	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) REGENTS OF THE UNIVERSITY OF MINNESOTA 110 Washington Avenue South Minneapolis, MN 55455 US		Facsimile No. Teleprinter No. Applicant's Registration No. with the Office	
State (that is, country) of nationality: <div style="text-align: center;">US</div>		State (that is, country) of residence: <div style="text-align: center;">US</div>	
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input checked="" type="checkbox"/> all designated states except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box			
Box No. III	FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) VERFAILLIE, Catherine M. St. Paul, MN US		This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Applicant's registration No. with the Office:	
State (that is, country) of nationality: <div style="text-align: center;">US</div>		State (that is, country) of residence: <div style="text-align: center;">US</div>	
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box <input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.			
Box No. IV	AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE		
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) LAWRENCE, William F. ; LEAHY, Amy Frommer Lawrence & Haug LLP 745 Fifth Avenue New York, New York 10151 United States		<input checked="" type="checkbox"/> agent <input type="checkbox"/> common representative Telephone No. (212) 588-0800 Facsimile No. (212) 588-0500 Teleprinter No. Agent's registration No. with the Office	
<input type="checkbox"/> Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.			

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
<i>If none of the following sub-boxes is used, this sheet should not be included in the request.</i>	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) JIANG, Yuehua St. Paul, MN US	This person is: <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Agent's registration No. with the Office
State (that is, country) of nationality: US	State (that is, country) of residence: US
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) 	This person is: <input type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Agent's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) 	This person is: <input type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Agent's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) 	This person is: <input type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Agent's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) 	This person is: <input type="checkbox"/> applicant only <input type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (if this check-box is marked, do not fill in below.) Agent's registration No. with the Office
State (that is, country) of nationality:	State (that is, country) of residence:
This person is applicant for the purposes of: <input type="checkbox"/> all designated states <input type="checkbox"/> all designated states except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the states indicated in the Supplemental Box	
<input type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.	

Box No. V DESIGNATIONS

The filing of this request constitutes under Rule 4.9(a), the designation of all Contracting States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents.

However,

- ☐ DE Germany is not designated for any kind of national protection
- ☐ KR Republic of Korea is not designated for any kind of national protection
- ☐ RU Russian Federation is not designated for any kind of national protection

(The check-boxes above may be used to exclude (irrevocably) the designations concerned in order to avoid the ceasing of the effect, under the national law, of an earlier national application from which priority is claimed. See the Notes to Box No. V, as to the consequences of such national law provisions in these and certain other States).

Box No. VI PRIORITY CLAIM

The priority of the following earlier application(s) is hereby claimed:

Filing date of earlier application (day/month/year)	Number of earlier applications	Where earlier application is:		
		national application: country or member of WTO	regional application: * regional Office	international application: receiving Office
item (1) 2 July 2003 (02.07.2003)	60/484,318	US		
item (2)				
item (3)				

- ☐ Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office) identified above as:

- ☒ all items ☐ item (1) ☐ item (2) ☐ item (3) ☐ item (4) ☐ item (5) ☐ other, see Supplemental Box

* Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)).

Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA) (If two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

ISA/ US

Request to use results of earlier search; reference to that search (If an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year) Number Country (or regional Office)

Box No. VIII DECLARATIONS

The following declarations are contained in Boxes Nos. VIII (i) to (v) (mark the applicable. (Check Boxes below and indicate in the right column the number of each type of Declaration)

Number of declarations

- ☐ Box No. VIII (i) Declaration as to the identity of the inventor
- ☒ Box No. VIII (ii) Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent 1
- ☒ Box No. VIII (iii) Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application 1
- ☐ Box No. VIII (vi) Declaration of inventorship (only for the purposes of the designation of the United States of America)
- ☐ Box No. VIII (v) Declaration as to non-prejudicial disclosures or exceptions to lack of novelty

Box No. VIII (ii) DECLARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT

The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes Nos. VIII, VIII(i) to (v) (in general) and the specific Notes to Box No. VIII (ii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

in relation to this international application,

REGENTS OF THE UNIVERSITY OF MINNESOTA is entitled to apply for and be granted a patent by virtue of the following:

an assignment from:

- (1) VERFAILLIE, Catherine M., of St. Paul, MN, US, and
- (2) JIANG, Yuehua, of St Paul MN, US

to REGENTS OF THE UNIVERSITY OF MINNESOTA., dated 23 October 2003 (23.10.2003), and 22 October 2003 (22.10.2003), respectively.

This declaration is made for the purposes of all designations, except for the designation of the United States of America.

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".

Box No. VIII (iii) DECLARATION: ENTITLEMENT TO CLAIM PRIORITY

The declaration must conform to the standardized wording provided for in Section 213; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

REGENTS OF THE UNIVERSITY OF MINNESOTA is entitled to claim priority of earlier application No. 60/484,318 by virtue of the following:

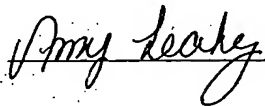
an assignment from:

- (1) VERFAILLIE, Catherine M., of St. Paul, MN, US, and
- (2) JIANG, Yuehua, of St Paul MN, US

to REGENTS OF THE UNIVERSITY OF MINNESOTA., dated 23 October 2003 (23.10.2003), and 22 October 2003 (22.10.2003), respectively.

This declaration is made for the purposes of all designations, except for the designation of the United States of America.

☐ This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".

Box No. IX CHECK LIST; LANGUAGE OF FILING		
<p>This international application contains:</p> <p>(a) the following number of sheets in paper form:</p> <p>request (including declaration sheets) : 6</p> <p>description (excluding sequence listing and/or tables related thereto) : 37</p> <p>claims : 2</p> <p>abstract : 1</p> <p>drawings : 5</p> <p>Sub-Total number of sheets:</p> <p>sequence listing : _____</p> <p>tables related thereto : _____</p> <p><i>(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form, see (c) below)</i> : _____</p> <p>Total number of sheets : 51</p> <p>(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(i))</p> <p>(i) <input type="checkbox"/> sequence listings</p> <p>(ii) <input type="checkbox"/> tables related thereto</p> <p>(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))</p> <p>(i) <input type="checkbox"/> sequence listings</p> <p>(ii) <input type="checkbox"/> tables related thereto</p> <p>Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the</p> <p><input type="checkbox"/> sequence listings</p> <p><input type="checkbox"/> tables related thereto</p> <p><i>(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)</i></p>	<p>This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):</p> <p>1. <input checked="" type="checkbox"/> fee calculation sheet : 1</p> <p>2. <input type="checkbox"/> original separate power of attorney : _____</p> <p>3. <input type="checkbox"/> original general power of attorney : _____</p> <p>4. <input type="checkbox"/> copy of general power of attorney; reference number, if any: : _____</p> <p>5. <input type="checkbox"/> statement of explaining lack of signature : _____</p> <p>6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): : _____</p> <p>7. <input type="checkbox"/> translation of international application into (language): : _____</p> <p>8. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material : _____</p> <p>9. <input type="checkbox"/> sequence listing in computer readable form (indicate also type and number of carriers (diskette, CD-ROM, CD-R or other)) : _____</p> <p>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application) : _____</p> <p>(ii) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter : _____</p> <p>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column : _____</p> <p>10. <input type="checkbox"/> tables in computer readable form related to sequence listings (indicate type and number of carriers)</p> <p>(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802(b-quarter) only (and not as part of the international application) : _____</p> <p>(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Section 802(b-quarter) : _____</p> <p>(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column : _____</p> <p>11. <input type="checkbox"/> other (specify): : _____</p>	<p>Number of items</p>
<p>Figure of the drawings which should accompany the abstract: 3C</p>	<p>Language of filing of the international application: English</p>	
<p>Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE</p> <p><i>Next to each signature, indicate the name of the person signing and the capacity in which the person signed (if such capacity is not obvious from reading the request).</i></p>		
<p style="text-align: center;"> Amy Leahy</p>		

For receiving Office use only

<p>1. Date of actual receipt of the purported international application: _____</p> <p>3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application: _____</p> <p>4. Date of timely receipt of the required corrections under PCT Article 11 (2): _____</p> <p>5. International Searching Authority (if two or more are competent): ISA/ _____</p>	<p>2. Drawings:</p> <p><input type="checkbox"/> received:</p> <p><input type="checkbox"/> not received:</p>
<p>6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.</p>	

For International Bureau use only

<p>Date of receipt of the record copy by the International Bureau: _____</p>
--

For receiving office use only

PCT

FEE CALCULATION

Annex to the Request

 Applicant's or agent's
file reference **890003-2006.WO**

International application no.

Date stamp of the receiving Office

Applicant **REGENTS OF THE UNIVERSITY OF MINNESOTA****CALCULATION OF PRESCRIBED FEES**1. TRANSMITTAL FEE..... **\$300.00** **T**2. SEARCH FEE..... **\$1,000.00** **S**International search to be carried out by **US**

(If two or more International Searching Authorities are competent to carry out the international search, indicate the name of the Authority which is chosen to carry out the international search.)

3. INTERNATIONAL FILING FEE

Basic FeeWhere items (b) and/or (c) of Box No. IX apply, enter Sub-Total number of sheets } **51**
Where items (b) and (c) of Box No. IX do not apply, enter Total number of sheets }**i1** first 30 sheets..... **\$1,134.00** **i1****i2** **21** x **\$12.00** = **252.00** **i2**
number of sheets in excess of 30 fee per sheet**i3** additional component (only if sequence listings and/or tables related thereto are filed in computer readable form under Section 801(a)(i), or both in that form and on paper, under Section 801(a)(ii):
400 x _____ = _____ **i3**
fee per sheetAdd amounts entered at i1, i2 and i3 enter total at I..... **1,386.00** **I**

(Applicants from certain States are entitled to a reduction of 75% of the international fee. Where the applicant is (or all applicants are) so entitled, the total to be entered at I is 25% of the sum of the amounts entered at B and D.)

4. FEE FOR PRIORITY DOCUMENT (if applicable)..... **\$20.00** **P**5. TOTAL FEES PAYABLE **\$2,706.00**Add amounts entered at T, S, I and P, and enter total in the TOTAL box **TOTAL****MODE OF PAYMENT**
☐ Authorization to charge deposit account (see below)
 ☐ postal money order
 ☐ cash
 ☐ coupons
☒ cheque
 ☐ bank draft
 ☐ revenue stamps
 ☐ other (specify):
 AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACCOUNT
(This mode of payment may not be available at all receiving Offices)
☐ Authorization to charge the total fees indicated above.
☒ (This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.
☐ Authorization to charge the fee for priority document.

Receiving Office: RO/US

Deposit Account No.: **50-0320**Date: **2 July 2004**Name: **Amy Leahy**Signature: *Amy Leahy*

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☒ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.